

QUANTA

VOLUME 3 ISSUE 6

JULY 1986

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INFORMATION ON THE GROUP

Membership of QUANTA (QL Users and Tinkerers Association) is by subscription to QUANTA, the group's newsletter, which is published monthly. Membership details are obtainable from the secretary. Membership of the group is open to anyone with an interest in the Sinclair QL microcomputer.

Members requiring assistance with problems related to the QL may write to or phone the secretary. An attempt will be made to put them in touch with a member who can help with the problem.

Workshops will be arranged from time to time in various parts of the country.

The group maintains a software library. Most of the programs are free to members. A library list will be published from time to time. Programs are obtainable from the sub-librarians.

A list of members in any particular area is obtainable from the secretary.

Please send all contributions to the newsletter to the editor.

Chairman and
Newsletter Editor

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London W4 1NF
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NOTES FOR CONTRIBUTORS TO QUANTA

Quill files on Microdrive cartridge or 40 track disk (single or double sided), are preferred. Cartridges and disks will be returned ASAP. Printed or hand-written material is acceptable, of course.

Short programs can be included, but lengthy programs should be placed in the library, and a description sent in for the newsletter.

EDITORIAL

It's renewal time again for many of you. If you have an "R" on your envelope it means that your subscription expires with this issue, and you must renew your subscription if you wish to continue receiving QUANTA.

Amstrad are referring people with queries about the QL to us as a matter of course, as I am getting lots of phone calls from bemused QL owners asking if I am "QL User"! It looks as though Amstrad have got my phone number from somewhere, and are passing it on. Of course, it should be Brian's number they are given, as he deals with membership enquiries.

Amstrad appear to be getting a bit stropky about the CST Thor and the Tebby/Sandy QLT machines, as the June 26 issue of Popular Computing Weekly had a front page story about Amstrad insisting that CST had no legal right to use QL technology in their machine. I rang David Oliver of CST, and he reckons that Amstrad haven't a leg to stand on, as the Thor machine uses a QL circuit board, taken out of a standard QL, which has already been paid for. In fact, he's quite pleased; CST has got a large amount of free advertising out of the story, for two weeks running, as his response will be published in the next issue. The QLT and Thor II will be completely redesigned machines, so Amstrad won't be able to do anything about them, either.

At a recent Microfair, a member mentioned that he had a "shrink" program, that made a QL with expanded memory look like a standard 128K machine, so that programs that don't work properly with expanded memory can be run, without a lot of messing about. I don't remember who told me this, so could he please get in touch with me, as several members have asked for such a program.

I think it might be a good idea if we could have a few brief reviews of some of the programs in the library. To start things off I've written a review of Nigel Taylor's very useful program to transfer files from a PC disk to a Microdrive cartridge or QL format disk.

One or two cartridges sent to me have gone astray recently - the envelope arrives with a hole in it and no cartridge. The best way to avoid this is to secure the cartridge to a sheet of paper with adhesive tape (a printout of the article would be fine) and fold it so that it takes up most of the envelope. I always use this technique; it appears to be very secure and is a lot cheaper than Jiffy bags. Jiffy bags are fine, of course.

QUANTA members who are radio amateurs ought to join the Sinclair Amateur Radio User Group (SARUG). They publish an informative newsletter and have some useful software. Most of their members seem to be using Spectrums and ZX81s, but QLs are getting more popular. They gave QUANTA a plug in their most recent newsletter, so I thought I'd give them a plug in return. Membership details from:-

Paul Newman G4INP,
SARUG,
3 Red House Lane,
Leiston,
Suffolk IP16 4JZ.

Leon Heller

MEMBERS' LETTERS

Thanks again for another splendid issue of QUANTA.

I have already received a reply to my two queries in the latest issue from John Wynn of Peterborough. He reminded me of your concatenation routine from March '85, and also said that I should be able to increase the input buffer size by defining a console device but that this technique does not appear to work. I'll give it a try in any case.

His tip for the ordering of more than one Archive field is to order up to four of them at the same time, i.e.

ORDER typeface\$a,type size:a

Apparently the command ORDER when used separately destroys any previous ordering.

J. Jarratt,
4, Honeycroft,
Welwyn Garden City,
Herts. AL8 6HR.

I've been very pleased to see your review of MicroAPL QL/APL in Vol. 3 Iss. 4, especially after having heard you dismiss it as "a write-only language". QUANTA subscribers would be more attracted to the Keyword version, though, as I have been, since there's no funny key combinations and any printer will do.

There is an APL group - the British APL Association. It doesn't cater much for amateurs. The International APL Conference, APL 86, takes place at UMIST in July (very expensive) with Dr. Iverson himself speaking. The contact is Sylvia Camacho on (0727) 60130.

Eric Sergeant.

I see that Mr. Bingham-White was kind enough to review our Micro Rack cartridge tidy in the May QUANTA. Somebody once said "never complain, never explain", but I am a sucker for punishment.

First, the rack is not actually doorstrip. If I had been clever enough to think of it, it might have been, and thereby saved me £600 odd for extrusion tools, but it wouldn't have had the mating channels that clip two racks together, would it?

Because computer enthusiasts usually fall into one of two categories - youngsters or academics - who do not, perhaps, have much experience of the cold hard world of manufacturing, it may be that a spot of cards-on-the-table would be in order. We have spent £1200 on tooling, minimum material stocks, artwork, and advertising on the Micro Rack, and so far, with the help of kindly reviewers, we have sold just 84 racks. That means they have cost us £14.29 each to date. Most have been sold through QLUB at a discounted price of £3.95, of which 52 p is VAT. The bank takes an average of 89 p per paying-in slip. The cost of the rack and its post and packing is just over £2.00 each. Add that lot up, and there is not much left for advertising, especially when the cost of an advert has averaged about three times the sales value gained from it!

The irony is that the usual trade outlets for computer stuff, all of whom liked the product, said they could not handle it because it was too cheap, and not worth the trouble of selling.

Microdrive cartridges, on the other hand, must cost around 15 p each, bearing in mind you could buy blank audio cassette tapes in library boxes for 30 p retail, so at £1.99, and sales of two or three million, I should think the profit margin rather exceeds ours!

Still, we only have to sell another 800 or so racks, with Mr. Bingham-White's help, and we shall break even!

David Kelsey,
DRK Products Ltd.

PROBLEM SECTION

I have problems printing the plan view of the board in Psion QL Chess. Only half of the board is printed and I get an error message "Printer not ready".

I have a GLP printer connected via Ser1 to an unexpended JS ROM QL. I have tried many combinations: Ser1h, etc., and different baud rates, but to no avail. Does anyone have a cure?

Mike Smith,
14 Augustus Close,
Chandlers Ford,
Hants. SO5 2BF.
Tel: (04215) 62162.

I have a QL, version AH, with Medic expansion board and disk drives, and a Brother HR15 printer, which I use for a small business. They perform very well, but there are a few problems with which I would appreciate help from you or your readers:

(1) The Medic "systems" disk is corrupted, and although I wrote and asked for it to be replaced I never received a reply. Has anyone got a good one of which they could send me a copy? Did anyone ever receive one with all the promised programs on?

(2) I also ordered a parallel connection from the extension board (26-pin) to the printer (24-pin). It never came. Can anyone tell me where I might get one?

(3) I had been accumulating a database, using Archive 2.00. One evening I closed the files and quit to SuperBASIC, and then backed-up with "COPY flp2_printmadbf to flp1printmabak", which is my usual procedure. The following morning when I tried to open the files, both dbf and back-up returned the answer "Error 103: wrong file type". This is, of course, nonsense, but what have done and can I undo it?

I read QUANTA right through each month, marking bits that might come in useful some time, but I doubt if I understand more than half of it, and I would echo the letter from your correspondent from Croydon in the June issue. Can the amount of material for the non-technical be increased?

T. Rendall Davies,
c/o Cultural Interchange Service,
PO Box 538,
61 Church Hill,
London N21 1LF.

/* Don Forbes (01-688 5794) might be able to help with your Medic-related problems. A Beeb printer cable from Boots might be suitable. It works with some of the other parallel printer interfaces.

Somehow, your dbf file must have been corrupted before you backed it up. With important data it is best to use three disks or cartridges, and use them in rotation, backing-up at the end of each day onto the next day's disk/cartridge. Make a fourth backup at the end of each week, for even more security, and keep it somewhere else.

Chas Dillon's recovery program (available from Brian Pain) should get your data back for you.

As I keep saying, if material suitable for beginners is submitted, I'll publish it. LFH
*/

Has any member any experience of using the Sagesoft Integrated Accounts Package? I need to know the following:-

1. Can it be copied to Cumana 3 1/2" drives without having some other protection device?

- (2) How many VAT rates does it use, and can they be mixed on a single invoice?
- (3) Can the VAT rates be modified?
- (4) What prime books does it contain?
- (5) Is it worth £80?

Some letters in recent issues of QL User/World state that it cannot be used with
(a) expanded RAM machines (b) JM ROM machines - only JS ROMs. Any comments?

Anybody with this program please contact me by phone any evening after 7.30 p.m. or please write.

On a separate issue, can anyone give a short program listing demonstrating the multi-tasking commands contained in the Cumana disk system, i.e. AJOB and RJOB. They were written by Tony Tebby so should be the same as the QL Toolkit, but the instructions are very vague.

Martin McHugo,
19, Carton Court,
Maynooth,
Co. Kildare,
Ireland.
Tel: Dublin (0001) 286758.

/* The job control commands are not usually used in programs. I often use RJOB to abort a program (usually the GST linker if I set it going on the wrong file) - I get the job parameters with JOBS, and then use RJOB to terminate the program. I don't find the other commands very useful. Does anyone use them? LFH */

I have been trying to find out the advantages of the Psion 2.3 upgrades, and eventually spoke to someone intelligent at Psion, who told me that if one has version 2.0, the only upgrade worth having is Archive 2.36, because it allows one to use larger databases. I was hoping that there might have been some improvements to Easel, because I have been finding it extremely cumbersome.

For example, in Edit, although there are four possible items (vertical axis-name, horizontal axis-name, title, and labels), after any has been altered, though one would obviously wish to edit the next item, it seems to be necessary to start the whole process of editing from the beginning. Worse, if one follows the prompt to delete the title by F4

key, it is quite impossible to have a title at all thereafter. And if one uses F4 to delete the labels, and travels from left to right by tabulate as prompted, after the most right-hand label is done, the scale of the bottom axis changes, and cannot be changed back. If the file is large and has been exported from Abacus and then imported to Easel, this is distressing. Does anyone know better? Or is there a better package which accepts Abacus data?

Katherine Barclay,
Winchester Research Unit,
75, Hyde Street,
Winchester,
Hants SO23 7DW.

Has anyone in the group successfully used a QL and the Tandata QCom to access the Open University computer. If they have can they help me with any hints on how to do so. I am a complete newcomer to using a modem though I have had my computer for some time. I am attempting 5202 at the moment.

Can anyone recommend a book which would teach me something about electronics. I don't know anything at all so it would have to be very basic.

I find QUANTA very helpful. Keep up the good work.

Ms. C McCloskey,
29, Gladstone Street,
Darlington,
Co. Durham DL3 6JU.
Tel: (0325) 465096.

/* "Foundations of Wireless", by M.G. Scroggie, is the best introduction to electronics, in my opinion. Most libraries have a copy. LFH */

Does anyone know of any church-related software for the QL?

Robert Dyl,
15, Kilburn Court,
Newport,
RI 02840,
U.S.A.

I am having problems in getting Cash Trader to work from disk (Sandy interface).
Can anyone help?

V. J. Shah,
83, Falford Road,
Aspley Guise,
MK17 8HM.
Tel: (0908) 584676

Will anyone who has got the 8056 printer supplied with the QLs sold by Dixons to work with Easel, please get in touch with me.

Joe Thompson.
Tel: (0604) 719026

/* Several members are having similar problems with this printer, Brian tells me.
LFH */

CAMBRIDGE WORKSHOP

Members interested in hearing the latest news about the CST Thor machine and the Tebby/Sandy QLT should come along to the University Arms Hotel, Regent Street, Cambridge, on Sunday 27 July. We hope to have demonstrations of the two machines (probably in prototype form). I'll be giving a talk on the Talent TechniQL CAD package. Syd Day should be in attendance with the software library. Contact Brian Pain for further details.

Leon Heller

EDINBURGH WORKSHOP

Provided we get enough bookings (over 30 from both NATGUG and QUANTA) a workshop will be held in Edinburgh at the Mansion House Hotel on Saturday 20 September. Contact Ted Gladstone on 031-661 4558 as soon as possible if you would like to attend.

Leon Heller

PCW SHOW

The PCW Show takes place on the 3-7 September at Olympia. We will have our usual stand, thanks to the ACC, and volunteers to help man it are required (free admission as usual). Please let me know if you can help. Brian is arranging a "hospitality suite" in a pub close to the show on the Saturday, and companies who find the show too expensive will be able to make use of our facilities at very low cost, to demonstrate and sell software and hardware. The library should be present.

Leon Heller

QLT UPDATE

Our proposal to float a company to produce a QL compatible computer aroused a great deal of enthusiasm from the dealers who would have been the principal beneficiaries. Unfortunately, the enthusiasm to benefit from the proposal was not matched by a willingness to share the costs or risks. A very few dealers and distributors were prepared to match their risks to their benefits, but they could not be expected to carry the rest of the QL dealer network. It is with some regret that, for this reason, the proposal has been withdrawn.

Some other proposals have been made to enable the new computer to be brought to market. Of these, a proposal by Sandy of Milan seemed to us to be the most likely to succeed. Sandy is a company which has shown that it can bring products to market in very short time scales, the company has committed itself to the QLT, and it has the will to build the QLT in volumes sufficient to make the QLT a major contender in world markets. With Sandy driving the production and marketing, the QLT is not just a continuation of a doubtful market, but is a computer with a future of its own.

While I cannot determine Sandy's marketing policy, it seems likely that the base machine (512K RAM, one 720K 3 1/2" disk) will still be about £500 including VAT in the UK, with equivalent prices for the rest of the world. We hope that, despite the change of plan, the QLT will be in production by autumn this year.

The major changes to the specification in the last few weeks have been to improve and simplify the expansion capability of this new computer. I enclose a copy of the current specification.

Tony Tebby,
Q Jump.

D_MON AND SPLIT

I have a couple of programs in the Library which may be of interest to fellow 68000 code mechanics among the membership.

The first is D_MON which started life as a disassembler back in 1985, and has grown since then with the addition of a monitor and various utility functions, receiving its latest revisions/additions in May 1986.

D_MON is at its best when using one of its functions in conjunction with another. For example, the disassembled instructions on display in one window may be tested with the monitor (10 breakpoints, trace) and compared with a hex/ASCII dump all on the same screen.

The program is quite friendly, providing menus and prompts to guide you throughout, and a two line screen "notepad" can be called upon to record any details if you can't lay your hands on pencil and paper.

For moving code around memory there is a facility called Copy, and there is also Search, which will find a particular byte, word or long word wherever it may be. Dec to Hex and Hex to Dec perform instant conversions, and Printer will make you a hard copy on your Epson-compatible printer.

Insert is the latest addition to D_MON, and enables you to stretch apart a program where perhaps a few more lines of code will make all the difference. It creates a gap wherever you wish, and fills the gap with NOPs ready for you to replace. It then seeks out all the branch and PC-relative instructions and adjusts them to accommodate the gap. Not only that, but when the stretching process would invalidate any nearby short branch instructions, it automatically converts them to full word offset branches, creating the extra space by recursion.

Finally, Alter gives you the means to change the contents of memory directly, byte by byte.

Members who have already acquired an early version of D_MON will note the addition of the Printer, Insert and Notepad features. They may also like to know that the Monitor is now more robust (less likely to crash), bugs are out of Search, and there are numerous other more minor improvements. The program still occupies less than 10K.

My other contribution goes by the name of SPLIT, but is identical to the Insert section of D_MON (see paragraph above). It was written as a separate utility to put an end to the continual re-editing and re-assembling process during development of a machine code program. When a project needs a minor adjustment, Split will quickly provide the extra space needed for a direct injection of pure code. A fully commented source file, "split_asm", is also in the Library.

Mike Docker,
48, Liberty Avenue,
London SW19 2QR.

FUTURE OF THE QL

QL World and Transform arranged a meeting on Monday 23 June about the future of the QL, for companies involved with the machine, to which I was invited. Getting on for 50 people attended, mostly from the UK, but there were several from the continent, and one couple came from a US distributor. Colin Hughes of Transform opened the meeting, and brief presentations were made by Helmuth Stuyven (Dansoft), Ken McMahon (QL World), me (QUANTA), Freddy Vaccha (Digital Precision), Ken Browning (Eidersoft), David Oliver (CST), Chris Shafte (PST), Daniel Pulrich (Pyramide) and Carol Whitham (A+ Computer Response). We all affirmed our commitment to the QL, and it was agreed to hold a sort of open day for the press, at which many of the companies involved with the QL would demonstrate their hardware and software, to show that the machine was by no means dead, as some members of the press seem to think.

A representative from Ablex, the Microdrive people, was there, and he said that the ownership of the Microdrive technology still wasn't settled (Amstrad and Sinclair both reckon they own the rights), so cartridges are still in short supply. Ablex can supply cartridges with software on them, for some reason. Ablex are part of the giant Racal group, by the way.

Leon Heller

IBMDISK BY NIGEL TAYLOR

One of Nigel Taylor's many contributions to the Library is a program called `ibmdiskexec`, which is a utility program that allows one to transfer files on a PC or MSDOS disk to a QL disk. Until I found out about this program I had transferred files by using a SuperBASIC program based on Ron Dwight's fast disk copying program to transfer whole tracks from the PC disk, to files on a QL disk, five tracks at a time. I then edited the files by splitting them up into pieces and putting them together again, to rebuild the original files. This worked quite well but was rather tedious.

Nigel's program expects a PC disk in drive 1, and is completely menu-driven. Options available are:-

- B - Binary file copy
- C - Text file copy
- D - Display directory
- F - Find file
- Q - Quit
- R - Reset for different disk
- T - Display file

I used the program to transfer the source code of a public domain Prolog interpreter written in Turbo Pascal to a QDOS disk, and was very pleased with the results: all the files were transferred without any problems.

This is an excellent program, and is essential if you need to transfer files from a PC disk. Going the other way is a lot harder - anyone care to have a go?

The program is part of the £1 Nigel Taylor extended directory package

Leon Heller

NORTH LONDON SUB-GROUP

I am interested in forming a North London Sub-Group, which will meet on the first Sunday of each month at Northwick Park Hospital, together with local TRS-80 users, who have been using the premises for some time.

Mike Gottlieb,
Tel: 01-959 7382

NORWEGIAN SUB-GROUP

Would anyone interested in forming a Norwegian Sub-Group please get in touch with me.

Sigmund Lunde,
5582 Olensvåg,
Norway.
Tel: 04747 68928

BUG IN ARCHIVE 2.36

According to Colin Hughes of Transform, although Archive 2.36 is supposed to get over the problem of a 32K limitation on the index, which restricts the number of records in a file to a relatively small amount, by increasing the index to 64K, it doesn't! In fact, Archive 2.36 appears to "fall over" when the index is less than 32K, in some circumstances. Psion have been notified of the problem.

Leon Heller

SINCLAIR COMPUTERISED BULLETIN BOARD

Members with modems might like to try out Stephen Adams' bulletin board, on 01-249 3238. It can handle 300 baud and 1200/75 baud.

Leon Heller

REVIEW OF SIGN DESIGNER, £18.95 FROM D. S. ENTERPRISES

This package received a very favourable review in Popular Computer Weekly (Iss. 19, Vol. 5) but I thought QUANTA members would be interested in my experiences using this program.

It is written by E. Penman, and is supplied on two cartridges housed in excellent packaging similar in size to a Sinclair four cartridge box. One cartridge holds the Sign Designer program and the other, five different font styles. The latter also includes a Quill_doc file which needs to be printed in order to read the instructions for operation. Personally, I would rather have a proper hard copy manual supplied at the outset but of course this would put up the cost of the package. Admittedly, doing it through a Quill file gives the writer more scope to give fuller instructions and the 13 pages are very clearly written.

Essentially, the program is designed to produce posters and banners using any Epson compatible printer in one of the fonts already supplied. Alternatively you can develop one of your own using the font designer part of the program.

One character or whatever words that can be fitted in a single screen can be expanded to your desired size. Equally, the angle of the character/s can be turned through upright mode to 90 degrees, 180 degrees or 270 degrees. Thus, one can very easily produce a banner using continuous computer paper say with one enormous letter filling each page. I've found it extremely easy to use and given that you are using the graphics mode of one's printer, surprisingly quick to do the job.

Full instructions are given as to how one designs one's own style of font or an individual character. This part takes a little more effort as the pixels can only be shaped on a block basis. So, if you wanted to draw a curve, more editing time would be needed although a short cut would be to reshape say an "O" or "S" for example. My brief efforts experimenting so far easily produced a character of a walking man but I can see that full screens of elaborate designs can be built up and saved for future needs. The nicely designed boot screen of the program itself was drawn up in this way. Individual characters or screens can be saved up to a limit of 15K each which should be more than sufficient. The program can be transferred to run on disk and designs saved onto disk or cartridge, although the master cartridge has to be in mdv2 on initial boot-up to protect against piracy.

Anyone who wants some fun out of their QL as well as being in demand from their local jumble sale/fete committees, should get this program. It is well written, nicely packaged and offers scope for customising without having to be a programming genius. I can thoroughly recommend it. If any QUNANTA member has learnt of some more short cuts in customising fonts/characters I hope they will let us know. I think the program is only available by post at the moment from:-

D.S.Enterprises,
25, Trinity Rise,
London SW2 2QP.
Tel: 01-671 0209

Alan Essex,
Rivington,
Rockfield Road,
Oxted,
Surrey RH8 OEL.

REVIEW OF OTHELLO BY PYRAMIDE

OTHELLO by Pyramide is yet another version of the strategy board game. The only other version that I have played was a dreadful magazine type-in which was so bad that I never really got the hang of the game.

The Pyramide version has a professional appearance and uses the F2 key to switch between plan and 3D views, similar to Psion's Chess, but the effect is reduced because the game uses draught type counters.

The cartridge has no copy protection and can be run solely from the backup. Loading the program can be either by "boot" or, if multitasking is required, by "exec mdv1_codeb". When loaded it goes straight into a demonstration game. There are prompts across the top of the screen:- F1 - Help; F2 - plan/3D; F3 - load previously saved game; F4 - printer; F5 - set up

The main part of the screen is taken up by the game board. On the left hand side several small windows display:- move number, score, timer, last two moves and possible moves for player's turn or moves to be tested for computer's turn.

Difficulty levels are from 0-9, 0 being the weakest, and a level S. Level S is the only level where the timer imposes a penalty. I have been unable to beat the game even on level 0. The best I have done is to lose by 6 counters. My 15 year old son has however won a game, on level 0, but has been unable to repeat this feat. We have only had the game a few days and I am expecting to win in the near future (sounds like the England football team).

It is possible to take-back moves, change colour to take over the computer's game, force the computer to move where you want it, save current game (15 free sectors required), abandon current game for a new one and quit (returns to SuperBASIC). These options are also displayed across the top of the screen when optional commands are selected by the F3 key.

I found the game addictive and challenging. The screen display is stable, even on my TV, and the graphics smooth and clear. The price of £14.95 is high in comparison with other computers but is value for money when compared with other QL software.

If this program is representative of Pyramide's other software then it looks as if I shall be a regular customer.

Mike Smith,
14, Augustus Close,
Chandlers Ford,
Hants. SO5 2BF.
Tel: (04215) 62162

LIBRARY CORNER

"What's in the library?". It's a question that callers often begin with and I usually suggest that whilst I can give a general guide on specific interests they would be well advised to purchase the library guides which give details of all the programs held in the library. Undeterred, a few expect me to go through the 500 odd files, whilst others expect the library to contain all the commercially available software (at no charge!!).

So what is in the library? The library is written by members, for members and many interests are catered for. Tony Tebby got it off to a good start with his extensions and Screen editor on library 1, Rob Sherratt, Mike Finley and Leon Heller followed on with Amoncpy which gave us a monitor, an assembler and a fast copy program all of which are still very popular today. We had our share of short programs, some of which would not qualify for inclusion in the library today but they helped to get a library together and we were very grateful for them at the time. Our first sizeable Archive program using version 1 appeared about this time together with DASM_XDR, another old favourite which has since been much enhanced. At this time the first QLs, complete with the infamous dongle were not six months old. The next six months saw a rapid growth in the library with many excellent programs such as Tom Bladon's Hangman and Worm adventure (Now on 3 three very full cartridges) and Brian Torode's children's package. The first library guide was now full up and contained in excess of 250 files.

It is generally accepted that most of the better programs are covered on the second guide. They are certainly more complex in general and a high standard has been set by Brian Davies who has vetted all programs from library 13 onwards. Do not overlook the early programs, however, a glance through the guide could prove rewarding.

There are now 40 cartridges of programs in the library with others expected soon including C and Forth compilers. Your sub-librarian will have the latest details and will update your guides if required. It is advisable to telephone him before sending off to check that he is available, has the facility to copy on to the medium you require and the programs you want (Sub-librarians do have failures of equipment and programs or their employment may take them away from home. I even heard it rumoured that one took a holiday once!

Many members have disk drives so will be unaffected by the current shortage of cartridges. If you do have a problem obtaining cartridges get in touch with me and I should have a reasonable supply available. Overseas members without a National sub-librarian can obtain their programs on 3 ½ " disks from Jerry Tressman or on 5 ¼" disks and cartridges from myself. For 5 ¼" disks, 80 track double-sided, 40 track single- and double-sided are available, please advise format required.

Syd Day,
241, Highfield Road,
Romford,
RM5 3AW.
Tel: (0708) 27272.

FIXING THE METACOMCO EDITOR BUG

I am writing to you to try to help clear up a problem some users seem to be having when running a copy of Metacomco's screen editor on a QL with disk drives.

I came across the same problem when I was writing a directory device driver for a hard disk unit. The problem is that the editor when creating a new file on a medium makes a QDOS trap call using a TRAP £2 instruction with the wrong key value.

In Adrian Dickens excellent book, "The QL advanced user guide", it is stated in section 6.5 that if a new file is to be opened for exclusive use that register D3 is to be set to 2.

A subroutine in the editor at EDITOR+\$314 onwards makes a check to see whether the device that the file is being written to is a Microdrive, ie is the device MDV?, and if it is not, for some strange reason sets the open key to zero, overriding the original key value:

This has the effect that if a file is opened for writing to or for reading on a non 'MDV' device then the editor will get a not found error status from the directory device driver, and display an error message.

The fix is quite simple now the problem is understood. The code that overrides the key needs to be disabled. The following patch will do this for an editor at revision 1.6.

```

100 REMark editor patch utility rev 1.0
110 REMark P.Martin 7/5/86
120 REMark declare constants
130 patch=808 :REMark offset into editor for patch
140 old_instr=30208 :REMark MOVEQ £O,D3
150 new_instr=20081 :REMark NOP
160 ed_len=21348 :REMark length of editor
1 170 ed-data_len=4400 :REMark data space length
180 CLS
190 PRINT "Editor patch rev 1.0"
200 PRINT "Place a copy of ED in MDV1..."
210 PRINT "Press any key when ready.."
220 PAUSE
230 base=RESPR(30000) :REMark reserve space..
240 LBYTES mdv1ed,base
250 IF PEEK_W(base+patch)<>old_instr
260 PRINT "Wrong version of ED...."
270 STOP
280 END IF
290 POKE W base+patch,new_instr
300 DELETE mdv1_ed :REMark delete old editor..
310 SEEXEC mdv1ed,base,ed_len,ed_data_len
320 PRINT "All done now.."
330 STOP

```

For those with other versions the only help that I can give you is to use a monitor and search for the TRAP £2 instructions, of which there are five in rev 1.6 and the offending one is the second occurrence...

I hope that this helps a few users to utilise their disk systems more fully.

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REVIEW OF EIDERSOFT'S KARATE

Having read the Popular Computing Weekly review of Karate by Eidersoft and that this type of game appeals to my sense of key thumping (the type I head straight for in Arcades), as I was unable to attend the May Microfair I decided on a wild impulse to go and buy it.

Karate comes in a cassette packing on one Microdrive cartridge and an instruction insert. Before you can play the game it needs to be saved to another (moan) cartridge and it is this backup cartridge that will load into your QL, not before it checks Mdv2 that the original is in there. One cup of tea later we are up and running, ar so velly good glaphics in mode four.

After selecting no of players (max = 4) you start on screen one (with tlees and a blick wall in the blackglound) with you in green and the opponent in white. You and your opponent(s) strength is at the top of the screen and decreases as each successful blow is dealt. Shading on the Gee as each man is moved has been effectively done as is the movements and hits (about 16 in all), a joystick is a must so if you haven't adapted the old Atari yet, this is the program it should be done for. The first three screens are fairly easy to get through once you get used to certain tactics (read the insert) the fourth screen involves round red things that bounce in mid air, hit these and score points, but you are limited on time and if all are not hit then its one resse rife.

`The next section starts with two Karate opponents and this is becoming difficult as I tend to lose my cool and instead of tactics its a case of lash out, jump, kick, duck at everything. Sound is a bit naff but then it always is on the QL. At £14.95 it is slightly dear but recommended to any karate fans who like a bit of a bash.

Mode four on a Monitor with any colours you like as long as one of them is black? Yes its true , I have been experimenting with the video outputs of the QL and by swapping the leads round (KGB) you can have Black, White, Green, Red or .. Blue, .. or .. Blue, Green or by leaving off a colour you can have other mixtures. I would have thought this would be very easy to do internally with a minimum of hardware and some software. Any ideas? Perhaps a suggestion to the QLT designer.

On the subject of the QLT I read that Mr T. T. is looking for financial backing or equivalent, as it is in most QUANTA members best interests to keep the QL(T)(Thor) alive perhaps you could suggest a possible share scheme etc. to him that we could participate in.

A tip when using Toolkit II, do not type in ED and then press cursor down as some weird things happen when you try and alter your listings. No permanent damage however.

Another tip on Quill 2.3 when using install bas. My printer will not software switch the hash and pound symbols around so I decided that hash would be used by me more often and selected this using the dip switches. In translate for the pound sign I use the commands to the printer to enable user defined graphics mode (ESC K,n1,n2) this is for the Eprint printer which is more or less Epson compatible), and send code for a pound sign line by line ,sideways on (see most printer manuals). The maximum number of codes that translate allows is ten. If you require more than this then check lines 104 and 193 of install bas for the array Tx\$(a,b,c), increase c to required length. Watch This Space.

Where oh where have all the Microdrive cartridges gone? I have just bought the last from Boots.(Ringg ringg Ringg ringg disc dri.....)

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/* I did suggest the idea of QUANTA members investing in the QLT project to Tony Tebby, but he wanted a firm commitment from the various distributors to ensure the long-term viability of the machine. Now that Sandy are handling the manufacture and marketing, the best way to ensure that the machine is a success is to order one, when they become available. LFH */

HISTORY AND COMPUTING

At Westfield College, one March weekend, was held the first conference under this title, with some interesting papers and a few exhibitors putting on one or two good displays. Unfortunately, from my point of view, no one admitted to using a QL. The majority of speakers talked about work done on main-frame or mini-computers, often IBM compatible, and the BBC micro was almost the only one mentioned. That was particularly for the Domesday Book study, which is now under way and only two years behind schedule. It would certainly be interesting to have more teaching programs adapted for the QL.

One notable feature was the way over and over again speakers gave very similar reports about their problems and how they were getting to grips with them. It was fairly clear that as far as history is concerned either the computer experts don't know or the computers are often not a great help.

Quantative measurement is obviously something that the computers do help with, but history is much more than that and it is hard to find packages that can handle historical data with real ease.

My own choice fell on a splendid series of programs running on a new IBM - the 38? - which can take data in almost any form and put it out in a whole series of different relationships. Since I haven't yet got my ARCHIVE Genealogical Tree program up and working that sounds impossibly ambitious!

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THE PSION PROGRAMS - SOME NOTES

May I be permitted to pass on some jottings, largely about the Psion programs. These have been inspired by my own dabbling and by various letters in QUANTA.

Firstly, some comments on the 2.3 versions and Archive in particular.

ARCHIVE V2.3

As I think has been reported, all the bugs associated with losing the first record (when using records with one or more fields larger than one screen width) have been corrected. My three dummy records which I maintain at the front of important files have remained untouched since I started to use V2.3 (unlike with V2.0 when certain operations caused a deletion every time).

SEDIT now allows the creation of variable areas stretching over more than one line so that long (up to 255 characters?) items can be INSERTed, SINPUTted or ALTERed directly - no need to build them up by T6=T18.T26+T38. However, once, when I was experimenting with this facility, using a SEDIT defined variable area of 4 x 63 characters I hit a bug. On moving from a record with a long entry in this field to a record with a short entry, the short item overwrote the long item but did not blank off the excess. Nothing I did would prevent the long item from intruding into following records! I must say that I have been unable to reproduce this in any of my real files.

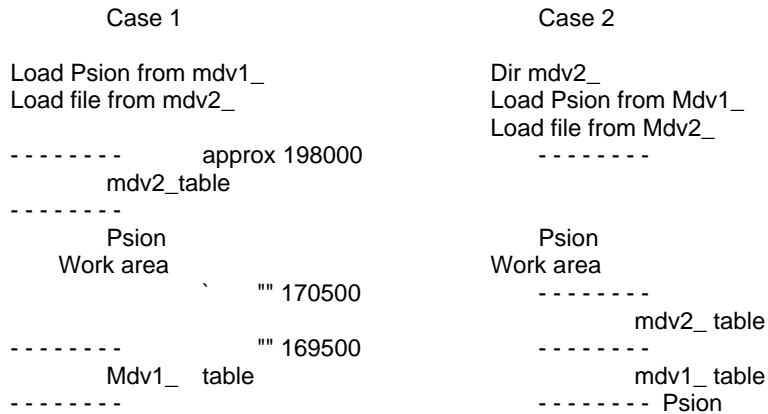
LOCATE caused me some trouble. In the main I am using files created under V2.0 (or even V1.0). Some files are ordered on a date field of the type DATE\$ 86/05/15 and with these LOCATE in V2.3 continued to work. Other files are ordered on name fields and with these e.g. LOCATE 'Guthrie', LOCATE 'Gregg' or LOCATE 'GOODFELLOW' would all find the first record containing a name beginning with 'G' and stop at that. This puzzled and annoyed me for some time until I thought of re-ORDERing these files in V2.3 and then everything was as it should be.

Then I tried the files in V2.0 again and the reverse occurred. Use LOCATE with a name field and it finds the first record with a name beginning with the NEXT letter, e.g. the examples given above all find the first record containing a name beginning with 'H'. Therefore if you have an Archive program that depends upon LOCATEing names it will not run in both V2.0 and V2.3 with out a reORDERing command.

Memory management! Archive V2.3 is slightly bigger than V2.0 and so the available memory is 1K less. Despite rumours to the contrary I find that none of the V2.3 Psion progs. release all the memory on QUITting so that another Psion program cannot be run without a reset. However this is easily overcome for all V2 Psion progs.

I first found an explanation for this undesirable feature in a file IQLUG1_TEXT by Ian Stewart on the LIBRARY 6 cartridge viz.-when the QL is freshly switched on or reset (and mdv1_ whirrs) QDOS first grabs 1K at the bottom of of the Common Heap area in order to set up a table to handle the mdv1_ directory. A Psion program when loaded, will then grab another 20-30 K of Common Heap as a work area. If one then loads a file (database, letter, spreadsheet etc.) from mdv2_, QDOS allocates another 1K to set up a table for the mdv2_ directory. On QUITting all V2 progs release the Common Heap which they requested, leaving the mdv1_ table sitting 20-30k above the mdv1 table. For reasons that I don't understand, Psion programs are unable to use this fragmented Common Heap although they CAN use a smaller but unfragmented one. However the solution is simple: Do something with mdv2_(e.g. call up a directory) before loading the Psion program and the mdv2_ table will be installed immediately above the one for mdv1_. You will then be able to load and QUIT Psion progs to your hearts content without the need to reset the QL.

FIG 1



BACKUP

This command has received much criticism over the past few issues, mainly with respect to slowness and unreliability. It seems to me that most of the critics do not understand just what this command accomplishes.

As a database file (dbf) is built up, records are of course added at the physical end of the file on the microdrive (or disk). Further, if existing records are ALTERed so that their physical size is increased then they will no longer fit into their existing slots and the new versions are added on at the end of the file, leaving a hole in the original position. DELETIONS also leave physical holes in the file. Some of these holes will be used when suitably sized new records are added. Such a typical file thus not only has records in almost random order but occupies more space on the storage medium than need be because of the holes.

If the file is ORDERed Archive keeps an index in RAM recording the new or Logical order but the physical order of records on the storage medium is not changed. Commands such as SEARCH or NEXT move from record to record in logical order and if this is not the same as the physical order the time to find the next record will be longer than need be, particularly if using Microdrives. If the physical and logical orders are the same then on a microdrive cartridge successive records will be spread out along the medium (in blocks of 512 bytes) such that a next block of records will be just a short distance further along the tape and so readily reached. If the two orders are different then moving on to the next block may mean rewinding most of the tape i.e. 7 secs. Chas. Dillon in his booklet on Archive quotes figures to show that SEARCHing a file with the records physically not in logical order may take 5 times longer (for Microdrives, 1.2 times longer with disks) than if the two orders coincide.

The relevance of this digression is that use of the BACKUP command creates a copy of the dbf file with all the records physically in the logical order. The copy will almost certainly be smaller than the original because it contains no holes. The time required is a function of how badly the two orders differ.

I conclude with two examples relating to the LIBGUIDE_DBF files containing the library lists. When I received the first library list cartridge the LIBGUIDE file occupied 85 k and when ordered according to LIBFILE_prg, searching and/or browsing caused a lot of Microdriving! BACKUPping(!) took 45 minutes (no trouble) and gave a file of only 72 K. Browsing now involves only short bursts from the Microdrives. With the second library list the effects were even more dramatic! This file occupying 90 K, was obviously created from the first one by deleting all the records and inserting the new ones(some of the deleted records can be seen by COPYing the file to SCR_ in SuperBASIC). The BACKUP process took 10 minutes and gave a file of only 22 k. Thus I can now have both LIBGUIDE files on the same cartridge.

COPYing or BACKUPing - A TIP

On a few occasions when BACKUPing in Archive or COPYing in SuperBASIC the QL seems to get stuck when reading from the source cartridge. It just spins and spins, eventually giving a BAD OR CHANGED MEDIUM message. I have discovered (by accident) that if the spinning cartridge is removed briefly and immediately replaced when an abnormally long read is noticed (but before any error message appears), then the QL starts to write to the destination cartridge whatever has already been read in AND then proceeds to read again as if nothing amiss had happened. A full copy of the file is obtained.

ABACUS

An anonymous letter in QUANTA 3.3 raised some questions about how to set up a spreadsheet template with the minimum of typing. The questioner wanted to achieve something like

	A	B	C	D	E	F	G	H	I
1		1975.					1976		
2		Jan	Apr	Jul	Oct			Jan	Apr
3	Rent						Rent		
4	Rates						Rates		

There are probably several ways of doing this. The most simple that I can think of involves the ROW identifier.

ROW= formula or cell reference.

If we refer back to a cell earlier in the row (say five cells earlier) then as the formula is repeated along the row the cell reference keeps referring to a cell the same distance away (five in this case). Abacus, of course prompts for the range of columns over which the formula is to apply.

(I) The year entries.

```
B1 1975
G1 ROW=IF(b1,b1+1,0) (answer prompts for range e.g. G to Z)
```

The formula tests whether or not there is a non-zero number in a cell 5 columns earlier. If there is, then the value of the contents of that cell plus one is inserted into the current cell, else a zero is inserted. This leaves the row full of zeroes which can be blanked out via the DESIGN command(F3, D, B). If this is unacceptable strings can be used .

```
B1 "1975 (a text entry)
C1 ROW="" (answer prompts C to F)
G1 Row=IF(VAL(B1),STR(VAL(B1)+1,2,0),"") (answer prompts)
```

(ii) The month entries.

```
A2""
B2 "Jan
C2 "Apr
D2 "Jul
E2 "Oct
F2 ROW=A2      ((answer prompts)
```

This last entry repeats the entries in A2-E2 over the desired range.

(iii) The item entries.

These are treated similarly to the month entries. For EACH ROW e.g.

```
A3 "Rent
83 "" or B3 ROW = "" (from B to E)
C3 ""
D3 ""
E3 ""
F3 ROW=A3      (answer prompts)
```

I think I should stop now. Has anyone else noticed how word processors encourage one to write (and write)? I would never write a letter this length by hand:

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SUPERBASIC ALL-SORTS.

This offering has been prompted by John Tanner's "Basic Misconceptions" in the November '85 issue. Many thanks, John, for some very sound tips and advice.

Two minor "bones":-

1. "GO TO" - has a valid use, e.g. in conditional line skipping.
2. "GO SUB" - can be very handy in using a "middle" part of a Procedure by attaching a tag (say v=5) before jumping in and having an exit line at the correct point in the Procedure, such as "IF v=5:RETurn.

Some of the following might be of use to some members, based on my own experience:-

INPUT £0 keeps screen tidier than INPUT, so does PRINT £0 for prompts, instructions etc., making the bottom window into a general "admin." area. One gets used to knowing where to expect them and it leaves the larger windows free for better use.

An extremely simple, but most useful, PROCedure to include in all programs is:-

```

100 DEFine PROCedure ALL
105 WIDE=256:REMark FOR TV, CHANGE TO WIDE=233
110 WINDOW WIDE,202,255,0:WINDOW £2;WIDE,202,256-WIDE,0:
WINDOW £0:2*WIDE,50,256-WIDE,206
115 PAPER 2:INK 7:BORDER 1,7,0,3:PAPER £2;7:INK£2;0:BORDER £2;
    1,7,0,3:PAPER £0;4:INK £0:0
120 CLS:CLS £2:CLS £0
125 END DEFine

```

It clears and resets all three WINDOWS. The PAPER, INK and BORDER colours seem convenient for a monochrome display.

Since AT, CURSOR, WINDOW etc. are coordinate-dependent, moving captions, or complex drawings can be produced by using simple equations for these coordinates.

You may want to store a value safely, unharmed by CLEAR etc. The simple solution is to POKE it at a chosen address, from which you can always get it back. However your value may well be a floating point number and POKE can only deal with integers. If four decimal places is good enough for variable x-

POKE_L PK,x*10000 and x=PEEK_L(PK)/10000 is a typical solution.

Reserve space for the address PK at the start of your program by say

"PK=RESP(500)". Reserving less than 500 gives no saving, 512 is the minimum recognised by the system.

Remember that POKE L requires an even address and will use up three of them (eg.PK, PK+1 and PK+2).

PROCedures and FuNctions are extremely powerful and economic. The best programs should consist mainly of these and lines calling them.

However if execution of a PROCedure stops before reaching END DEFine, or RETurn (eg. an ERROR), you will still be in "procedure" mode and peculiar things will happen, sometimes even a crash. The Manual suggests using the direct command CLEAR. This will clear the procedure mode, but you will also lose all your variables.

Instead EDIT any program line (best a blank one) and ENTER it (without any change). The PROCedure will be cleared with your variables in perfect health.

The above also applies to FuNctions and to SElect.

The following is a prompted input PROCedure ("PROMPT"), written as a result of being deservedly and helpfully slated by Leon. It expects three parameters:-

WA\$= Suggested input (printed in faint ink), eg. frequent menu choice, drive No., current file name etc. It may be "" (empty string). To accept it, you just press ENTER. OTHERWISE YOU MUST ENTER THE ENTIRE, DIFFERENT INPUT.

NM\$= The description of the variable to be input, eg. NAME. It will appear in the input prompt as "ENTER NAME ".

PPP= Positive integer, determining the number of decimal places to which numeric input is to be rounded off or, if PPP.= -1, string input will be accepted.

Typical program line with no suggested input:-

```
10 PROMPT ", ' AMOUNT IN ACCOUNT" ,2:AA=NN$
```

The input line (in WINDOW £0) will be:-

```
" ENTER AMOUNT IN ACCOUNT £ "
```

and the amount input will be assigned to the variable AA, i.e. equivalent to:-

```
10 CLS £0:INPUT £0;' ENTER AMOUNT IN ACCOUNT £ ';AA
```

Only numerical input will be accepted and will be rounded off to two decimal places. If the input contains anything other than a "+", or "-" sign, a ".", or digits 0 to 9, it will be rejected and you will be asked to try again.

(Yes, Leon, rubbish like "++..-7-", "27-34.3", or even just "4.567.8" will also be rejected.)

A lot of people turn up their noses at SuperBASIC programs. If, like me, you are primarily a serious user rather than a program writer, you may well feel that the ease of changing, improving and extending programs in minutes rather than days is worth the extra two minutes a day to load them. Their speed of execution seems to me to be very acceptable for the needs of ordinary, extremely busy mortals.

I have my own "user's toolkit" with a mini word processor, a full capability calculator and single-key mdv commands, all in one program. It takes one minute to boot and leaves enough free memory (it tells you how much) on a standard QL to let you get on with other, simple tasks.

I have offered it to the Library as an option. It has saved me many hours at home and in the office even though it isn't in LISP, or even c.

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PRINTER CONTROL CODES

After a lot of messing about with Quill, install bas and my printer manual, I think I've finally come to terms with the problem of matching the capabilities of my printer (MT-80) and the QL. The following notes are intended to spare others some of the many frustrating hours....

The problem arises because the QL character codes do not always correspond with those in the printer. Although the main ASCII range (codes 32-128) is OK, it is not possible to send codes from 0 to 31 as a QL character (you would have to use chr\$1) to send them to the printer), and the codes above 128 look completely different on the QL and the printer fonts.

There are, however, ways round this. The first is the "translate" facility provided in install bas and this enables any printable QL character to produce a variety of effects on the printer, as up to 9 codes can be sent for each translated character. An obvious application is to translate the "£" (QL code 96) into ASCII code 35 for the printer (or if the printer dip switch is set to USA characters, then the translated codes would be "esc,R,3,35,esc,R,0"). However, it is possible to send other control codes to the printer, such as changing line spacing and printing enlarged or compressed text, by using QL characters with codes greater than 128.

The translate option has the disadvantage that a QL character appears on the screen and this can ruin your formatting unless you make due allowance or add a space (code 32) to the translated codes. It is a very useful facility, but unfortunately there are only 10 of them, so it is usually necessary to resort to other tricks....

On the MT-80, some of the non-printable codes 0 to 32 are repeated as codes 128 - 160, so it is possible to send very complicated printer instructions from Quill using code 155 (control + ;) as "esc" etc. As QL characters appear on the screen, this will destroy formatting, so embedded codes are not really feasible.

Another way out of the problem is to use some of the existing Quill "translations" such as subscript and superscript to mean something else. For instance, this letter could be written in subscript mode ("low script") as I used install bas to convert the codes for subscript to the codes for italics as I never use subscripts. This has the advantage of preserving formatting and also looks reasonably good on the screen.

Thus having saved some precious "translates", I have used them to send "user-defined" symbols to the printer. This is done by translating one QL character into "esc,K" which puts the printer into graphics mode and then another QL character is used to send the codes for number of bytes and the graphics bit pattern - a maximum of 7 bytes are possible as 2 are used for the number of bytes and the total can't exceed 9. If you wanted to put the whole thing into one QL character, you'd be limited to 5 bytes of graphics image, which would make a thin symbol on the paper.

Eventually, I have managed to produce all of my printer characters and control codes (including graphics) from Quill by a combination of the methods described above. It's a pity the documentation for doing this didn't exist in the first place...

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MT-80 GRAPHICS DUMP

Unfortunately, there is no MT-80 graphics dump provided with Easel, and the Epson code produces a fairly poor result - the dump is not centred on the paper and it has the wrong line spacingannoying gaps appear between lines of graphics.

Again, after some frustrating hours, I came up with a simple patch for gprint_prt which solved both problems.

To tackle the "centring" problem first. Basically, you need to set up a horizontal tab and then send the tab code (09) every line to indent the output from the edge of the page. Unfortunately, there isn't enough room on the "gprint" code to fit this in without re-assembling the whole thing (!), so I had to resort to some SuperBASIC as well. Before you use "gprint", run a short basic program, or modify your boot, such as:

```
100 open £4, ser
110 print £4;chr$(27);chr$(68);chr$(10);chr$(0)
120 close £4
```

This sets up a tab 10 spaces in from the left margin. Now all that's required is to send chr\$(09) between lines of graphics dump to achieve a centred picture! Fortunately, it is possible to squeeze this into the "gprint" code without changing anything else - and modify the line-spacing to 7/72 at the same time....

If you LBYTES "gprint_prt into memory at "base" then use the following:

```
POKE (base +401), 49 REM line spacing
POKE (base +402), 9 REM tab
POKE (base +409), 9 REM tab
```

then re-save it, you've done it:

You can now use "gprint" from within Easel or as a screen dump using CALL

- if you want the output centred, you must set up the printer first as above with some superBASIC.

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QUILL SPOOLER

In your last issue, someone wanted a Quill spooler. I haven't the programming knowledge to do the job properly, but can I suggest the following:

1. Buy "CHOICE" multi-tasking software from Eidersoft
2. Buy "SUPERCHARGE" from Digital Precision
3. Write a simple basic program to copy from a "_lis" file to the printer....
eg COPY xxxxx_lis TO ser
4. Supercharge it to produce an EXEC version
5. Use "Choice" to produce a task file (_tsk) for quill and your supercharged copy program

Having done this, you simply load the tsk file instead of quill at the start of a session and you can jump between quill and the copy task at will ...you can now write and print at the same time! As a refinement, I set up a ram disc in my boot program and thus save disc wear by "printing" from quill to "ram1_ _lis" and then spooling from "ram1_" to the printer. The only problem I have with this arrangement is that the printer stops after about 20 lines and has to be continued by momentarily re-accessing the spooling task before returning to quill any ideas in exchange for further details....?

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PERSPECTIVE DRAWING PROGRAM

I have recently contributed to the library a perspective drawing program (named perspective bas, with perspec_doc for fuller explanation and a small example house to test the program, filename perspective_xyz), which can be used to create perspective drawings about objects of nearly any kind, although the program is written with buildings and such in mind.

Easiest way to use the program is to have plans and elevations, from which the coordinates can be measured. The scale of plans is not of great concern, I usually use 1:100 and the co-ordinates are measured in decimetres (tenths of metre).

ALL points actually need five figures: x, y and z co-ordinates and data for the start of line(s) and the data for the points group (called item). The x- and y-coordinates can be measured from plans and z -coordinates from elevations. Drawing data for start of line is 1, for following points of the set of lines it is 2. New set is started again with 1. Item data can be any number you choose in integer range; however, -1 is reserved to mark the total end of coordinates to be used, 100 and 101 are for the standard tree and 200 is for the standard human. At the end of the program are procedures for these. You can, of course, create similar procs for any often-used objects.

After you have got together the necessary points you can run the program. In window £0 a menu will appear to give different options. There are quite a few of them and explaining them here would take too much room, so a short list: points can be input, altered, copied, any co-ordinate can be added to or subtracted from, points can be listed partially or wholly, they can be rotated to any direction, the scale of picture and the part of it to be shown can be selected, the viewing point can be selected freely and, of course, the picture can be drafted - all or part of it, and then copied to printer. Anyone with a plotter would need his/her own procedures for that, and the printing codes are for the Brother HR5 (at least it's cheap...) but I suppose they can be adjusted for other matrix dot printers without too much botheration.

The program is mostly in procedures without a single goto or gosub and local variables have been used even when not strictly necessary. The rotation procedures are the slowest part of the program (if put through the SuperBASIC Compiler the program would be nicer to use; anyone willing?), with the exception of the screen copying in larger format (takes about half an hour...). I have used (I hope) only the commands available in standard SuperBASIC and so this program should work in earlier versions, too.

The biggest problem with programs of this kind is finding the coordinates and then inputting them; I have tried to make it as easy as possible, but it is still tedious when the amount of points starts getting higher.

Hidden-line perspectives are not possible with this program, although a substitute is possible: you can always select the items of points so that by partial drawing and not clearing the screen only the visible lines can be shown.

The windows are set to the monitor mode at the start of the program. There are also other fundamental variables which can be adjusted to suit your needs (size of arrays, storage device etc).

I have set colours to suit my yellow/black monitor; for colour, different settings might be better.

Seppo Syrjäl,
Sepetlahdentie 14 A 2,
02230 Espoo,
Finland.

REVIEW OF PRINT SPOOLER BY BREAKTHROUGH SOFTWARE

This piece of software is most competitively priced at £6.50 including the Microdrive cartridge, and delivery was fast taking only two days from sending off the cheque to receiving the cartridge and documentation. The documentation is sufficient if a little brief for the complete beginner.

Spooler is loaded by the command EXEC MDV1_SPOOLER exec before loading Quill with the BOOT program, or by using the new boot program for Quill contained on the cartridge. I use the program with ICE and ram disks which are set up before loading the spooler. This arrangement is ideal as, with the program CHOice, up to four EXEC programs may be "multi-tasked", together with ICE, while a Quill document is printing out. It is possible to swap between these programs while the Quill document is being printed any number of times, a most useful feature, especially if the document is lengthy.

To print a document using the spooler the Quill document must first be printed to a device, such as MDV2_ or RAM1_ (eg. RAM1_Spltest). This prints the current document, as a _lis file to the device together with all the relevant control codes. The spooler is then accessed by CTRL F4. A prompt then appears in the bottom left corner of the screen for the file to spool (eg. RAM1 Spltest_lis <enter>) and then the output device (eg. SER1). From then on the program takes over the printing of the document. It is important however to take note of the above syntax as no error messages are displayed, if the wrong device or filename is entered, for instance.

Also contained on the same cartridge are a number of other files which include various extensions to BASIC and a screen dump to a printer.

I hope this review is of use to anyone interested in buying a print spooler and for £6.50 one can't go far wrong.

Available from:-
Breakthrough Software,
17, Shaftesbury Way,
Royston,
Herts

Philip Chaplin,
30, East Park,
Sawbridgeworth,
Herts. CM21 9EX
Tel: (0279) 722033

FOR SALE

I up graded from a Spectrum to my present QL system in January this year to help with my final year of undergraduate studies. Consequently, I have a Spectrum, plus extras, for sale to any interested party for around £200 + postage. The package contains 48K Spectrum, Interface 1, Microdrive, Light pen, 10 cartridges, ZX Printer, 13 rolls of paper, DK Tronics Keyboard, Hisoft C, various games including the Hobbit and Lord of the Rings, various utilities. All hardware is housed in a carrying case with foam cutouts. The computer and all the extras are as good as new and have never been repaired. If interested, please contact me.

Philip Chaplin,
30, East Park,
Sawbridgeworth,
Herts. CM21 9EX
Tel: (0279) 722033

DISCOUNTS

I thought it was about time that we published the current position on discounts available to QUANTA members. The discount on just one or two items will pay for your QUANTA subscription, so it is worth making use of the offers.

15% discounts are available to QUANTA members from Talent Computer systems and Metacomco (now available on Lattice C and QL/APL).

A 10% discount is available from Digital Precision.

A 10% discount with free delivery in the UK is available from GST/Electric Software for their QC compiler.

A label from the latest issue of QUANTA must be enclosed when requesting a discount, and orders must be sent direct to the companies concerned: the discounts do not apply to goods obtained from dealers and other retail outlets.

Leon Heller

REVIEW OF TECHNIQL BY TALENT COMPUTER SYSTEMS

TechniQL is described as "a two-dimensional CAD package suitable for all general, scientific and engineering applications".

TechniQL's features include:-

- Fast, multi-width printer output
- Menu or keyboard driven
- Pictures can be much larger than the screen
- Zoom in and out
- Compressed storage of designs
- Library of drawing tools - lines, circles, boxes, arcs, ellipses and polygons
- Two screen modes
- Up to 75 cells
- Cells can be edited, mirrored, rotated, scaled, and accurately positioned in other cells
- Grid and grid snap
- Up to eight layers per design
- Text facility
- Relocatable code (usable with disk and extra RAM)

TechniQL is supplied on a single Microdrive cartridge, which may be backed-up on to another Microdrive cartridge, or disk. The original cartridge has to be present in mdv2 for the program to initialise properly. No printed documentation is provided - the documentation is in the form of a compressed text file which must be expanded using a utility program supplied, and then printed on a suitable printer. Whilst I would have preferred a proper printed manual, anyone using this package must have an Epson-compatible printer to do anything useful, so it doesn't matter too much. The documentation will take about 46 pages when printed out. Veronica Colin of Talent informed me that anyone who asks for a printed copy of the documentation will get one free. A handy card summarising the commands available is also provided.

Since the program can use either mode (F1 or F2 may be selected when the QL is booted), and the screen is effectively a "window" onto a much larger "virtual" screen, operation with a TV is quite viable.

I used the package from disk, and consequently had to modify the boot program slightly, and put the TechniQL program through the convert program supplied by CST, to change references to mdv to flp. When the program has loaded, the screen displays the program name and the names of the two programmers, with a copyright notice. Pressing any key starts the program. Four windows are displayed. A large area occupying about 3/4 of the screen on the left is the drawing area, with a grid of dots, and a cursor, which is a small circle centred on a dot in the middle of the area. On the right are three smaller windows. The upper window contains status information, such as the position of the cursor, the amount of free memory, ink colour, etc. The middle window is used to display information about the objects in the cell. The lower window is a help window. Prompts are displayed here.

All commands may be selected from menus, by pressing one or other of the function keys, or by typing commands, most of which consist of two letters. Generally, any operation is aborted by pressing the escape key. Operations are terminated by pressing the space bar. Errors are indicated by a squawking noise from the speaker.

Rubber-banding is available for lines, boxes, circles and ellipses. Drawings are treated as cells, and cells may contain other cells, which contain cells in turn. I think there is a limit of eight degrees of nesting. Zoom in and zoom out enable one to look at the drawing as a whole, or blow up any feature for close examination and easy modification.

I don't really have enough space or time to go into the many features of this package. I'll just say that with TechniQL one has a package that should enable the user to produce results similar to those achievable with packages like Autocad on the PC, at a fraction of the cost. Like Talent's GraphiQL, it will take some time and skill to learn to use it effectively, but it is capable of professional results.

How about members interested in CAD producing libraries for various TechniQL applications, such as electronic symbols, logic symbols, etc.?

TechniQL costs £49.95 plus 50p post and packing from:-
Talent Computer Systems,
Freepost,
Glasgow G4 0BR.
Tel: 041-552 2128

Leon Heller

COMPUTER CLEANERS



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- ".. the device is the answer.. (loading problems)" - BBC owner
- "Lock-ups are cured" - Golf club QL
- "It seems to work fine. No lockups yet" - use in Papua New Guinea
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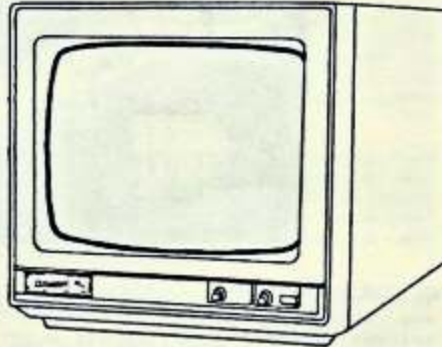
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COMPCWARE

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